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EXAMINER

LIM, KRISNA

ART UNIT

PAPER NUMBER

2153

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/008,349

Applicant(s)

ROY, PROTIP

Examiner

Krisna Lim

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the amendment filed 5/20/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. Claims 1-33 are presented for examination.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-33 are rejected under 35 U.S.C. 102(a) as being anticipated by Van Loo [U.S. Patent No. 6,260,174].

4. Van Loo anticipates (e.g., see Figs. 1-9C) the invention substantially as claimed. Taking claim 12 as an exemplary claim, the reference anticipates an apparatus comprising: a slave device (slave device 140, 150 of Fig. 2) adapted to receive a request from a first master device (master 110 of Fig. 2) via a bus (data path 155), wherein the first master device is one of a plurality of master device coupled to the bus (col. 3 (line 41) to col. 6 (line 27)); a queue (queue 160, 170 of Fig. 2, col. 5 (lines 43-44), cols. 8-9) of a plurality of elements (registers, counter) adapted to indicate the order in which the slave device has granted at least one previous request (col. 3 (line 41) to col. 6 (line 27)); a retry pool (SCIQ, SCOQ)(e.g., see col. 6 (lines 22-36), cols. 8-9) comprising a plurality of positions adapted to indicate which of the plurality of master devices have had a previous request denied by the slave device; and an acceptor circuit (130) (e.g., see col. 6 (lines 37-64)) adapted to grant the request based upon the queue and the retry pool (SCIQ, SCOQ) (e.g., see col. 1 (lines 42-62), col. 3 (line 41) to col. 6 (line 27), cols. 8-9).

5. As to claim 13, Van Loo anticipates the plurality of positions (counter) in the retry pool (SCIQ, SCOQ) each comprises a storage element (register) ((e.g., see col. 1 (lines 42-62), col. 3 (line 41) to col. 6 (line 27), cols. 8-9).

6. As to claim 14, Van Loo anticipates the acceptor circuit (130) is adapted to set the storage element to indicate which of the master has been denied a previous request (e.g., see col. 1 (lines 42-62), col. 3 (line 41) to col. 6 (line 27), cols. 8-9).

7. As to claim 15, Van Loo anticipates the acceptor circuit (130) is adapted to grant the request if the storage element set the storage element to indicate which of the master has been denied a previous request (e.g., see col. 1 (lines 42-62), col. 3 (line 41) to col. 6 (line 27), cols. 8-9).

8. As to claims 16 and 17, while Van Loo anticipates the acceptor circuit (130) is adapted to grant or to deny the request of the master device as indicated by the plurality of elements in the queue and the plurality of positions (counter) in the retry pool (SCIQ, SCOQ) (e.g., see col. 1 (lines 42-62), col. 3 (line 41) to col. 6 (line 27), cols. 8-9), and this acceptor circuit (130) is provided with intelligent and/or logic (hardware and/or software) in a conventional manner in order to control the queue (e.g., see col. 11, lines 9-16), Van Loo does not explicitly mention what kind of conventional manner is. The use of FIFO, LIFO, Least Recently Used and Most Recently Used policies to control the queue, to schedule the queue or to dispatch operation in the queue is well known in the art. Thus, it would have been obvious to one of ordinary skill in the art to recognize that such least recently served policy is inherent in Van Loo's queue control conventional manner.

8. Claims 1-11 and 18-33 are similar in scope as of claims 12-17, and therefore claims 1-11 and 18-33 are rejected for the same reasons set forth above for claims 12-17.

9. The rejections are respectfully maintained and repeated herewith as set forth in the last office action.

10. Applicant's arguments filed 5/20/05 have been fully considered but they are not deemed to be persuasive.

11. In the remarks, applicant argued in substance that he can not find the teaching or suggestion of a record that is adapted to indicate which of a plurality of master devices has had a previous request denied as recited in the independent claims. In response, Van Loo disclosed a record [e.g., either a queue 160, 170 of Fig. 2, col. 5 (lines 43-44), cols. 8-9, and a retry pool) adapted to indicate (registers, counter) the order in which the slave device has granted at least one previous request (col. 3 (line 41) to col. 6 (line 27))] or a retry pool (SCIQ, SCOQ)(e.g., see col. 6 (lines 22-36), cols. 8-9) comprising a plurality of positions adapted to indicate which of the plurality of master devices have had a previous request denied by the slave device and adapted to grant the request based upon the queue and the retry pool (SCIQ, SCOQ) (e.g., see col. 1 (lines 42-62), col. 3 (line 41) to col. 6 (line 27), cols. 8-9)].

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Note: Applicant is advised that those steps of the method of claims 18-33 could be easily and mentally performed with pen and pencils. Examiner recommended to change this simple "Method" to "A computer-implemented method."

A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) days from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35 U.S.C 133, M.P.E.P 710.02, 710.02(b)).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krisna Lim whose telephone number is 571-272-3956. The examiner can normally be reached on Monday to Wednesday and Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess, can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KI

July 20, 2005



KRISNA LIM  
PRIMARY EXAMINER